

## CATALYTIC CONVERTER

## ABSTRACT OF THE DISCLOSURE

A catalytic converter comprises a catalyst substrate concentrically disposed in a shell and having a mat support material located concentrically in between the catalyst substrate and shell. The catalyst substrate includes structural features located on its outer surface that engage  
5 the mat support material. The shear forces exerted between the catalyst substrate and mat support material, in addition to the normally present frictional forces, reduce the axial movement of the catalyst substrate during assembly and operation of the catalytic converter.